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## Selected Results from Nonresidential (<500kW) Summer 2001 Survey

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# Selected Research Questions

- How did <500 kW customers react to energy crisis?
  - ◆ Impact on business
  - ◆ Conservation actions taken and why?
  - ◆ Equipment changes made and why?
  - ◆ Changes in EE program awareness?



# Data Collection

## n Survey

- ❖ sample pulled from the CIS among < 500 kW customers
- ❖ 767 completes
- ❖ implemented to be representative of each IOU
- ❖ data collected July 5 - Aug 1
- ❖ Data weighted by GWh for the <500 kW population to reflect population by 7 business types and 8 HTR segments

## n Focus groups

- ❖ Small and medium customers were recruited from Dun & Bradstreet lists for mix of business types and HTR customers
- ❖ 8 groups (2 in Berkeley, Fresno, Orange City, San Diego)





# Summary of Selected Findings

- Almost all customers report they conserved
- Will conserve "as long as crisis lasts"
- Higher prices of more concern than blackouts
- Almost half report alert day actions
- Reported doubling of lighting equipment changes
  - ◆ more retrofits of functioning equipment
- Self-reported program awareness and participation also doubled since 1999





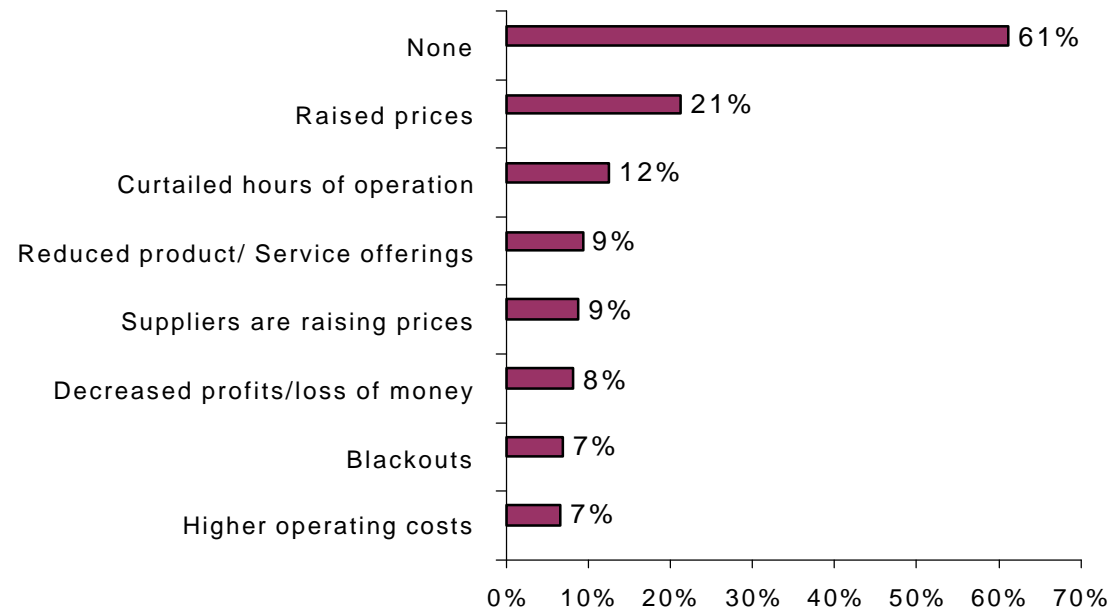
# Impact of Energy Crisis

- n There was universal awareness of the energy crisis
  - ❖ 99% of survey respondents
  - ❖ all focus group participants
- n Customers tended to view higher energy prices as a more serious threat than blackouts
  - ❖ 57% of customers list higher prices versus 22% that mention blackouts.
  - ❖ Institutional customers are most concerned about blackouts (45%). Small businesses tend to be least concerned about outages (13%).



# How Energy Crisis Has Affected Customers' Businesses

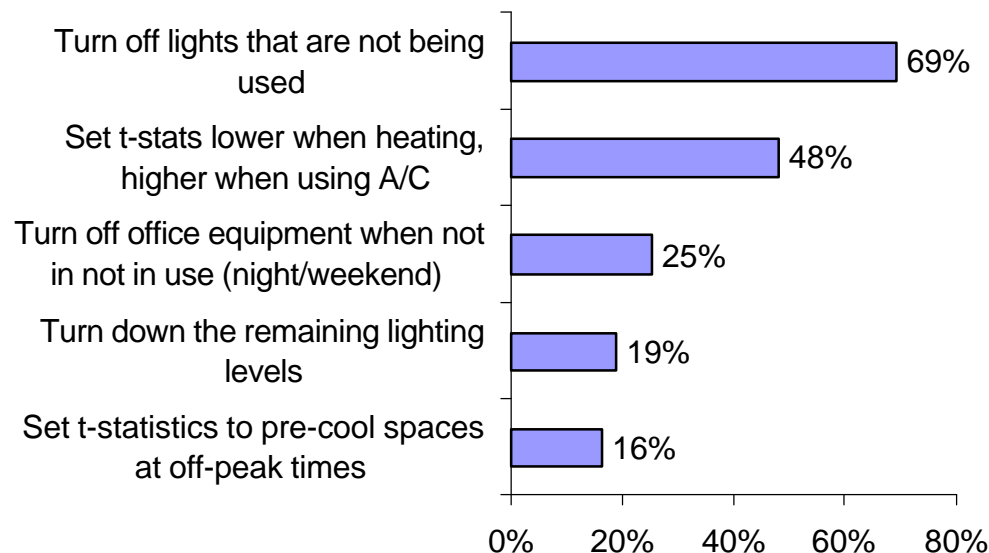
- n The most commonly cited impact on customers' businesses was that they had to raise prices. However, 61% report they have not been affected by the energy crisis.



# Energy Conservation Activities

- n 92% of respondents have taken energy conservation actions, mostly turning off lights and adjusting thermostats
  - ❖ 62% of respondents estimate that they are conserving 1 to 15%
    - Average is roughly 9%
  - ❖ 94% expect to continue to conserve as long as the crisis lasts

## Type of Energy Conservation Actions Taken





# Reasons for Conservation

- n 75% mentioned lowering energy/operating costs - primary driver of conservation activities
  - ❖ 88% of restaurants and groceries report that higher prices have affected their conservation actions
- n 34% of respondents report taking conservation actions out of civic duty
- n Most frequently cited reason for not conserving is interference with business operations (16%)
  - ❖ 7% don't believe it would make a difference
  - ❖ 5% don't know what to do.



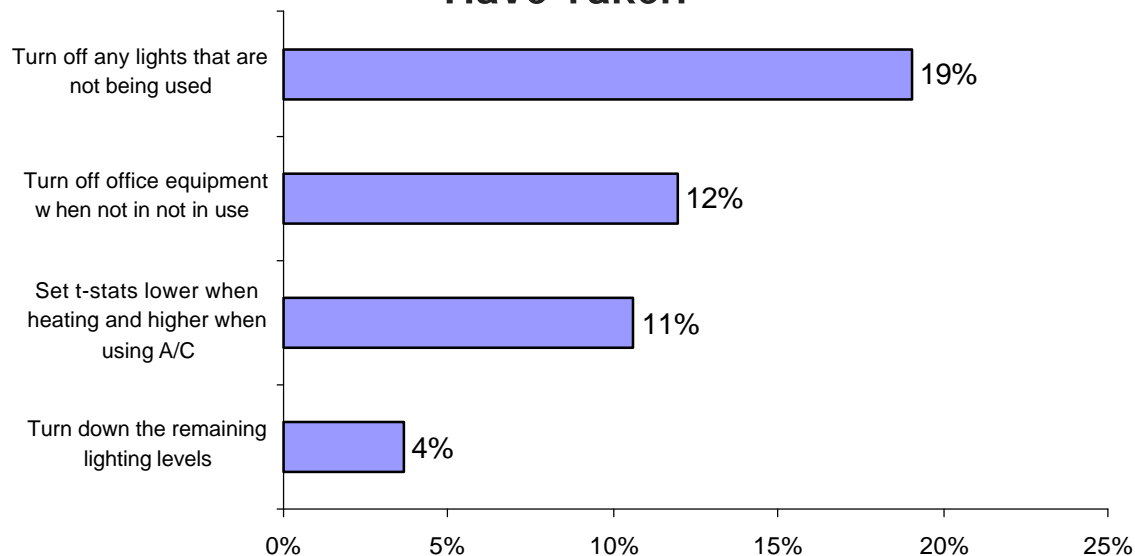




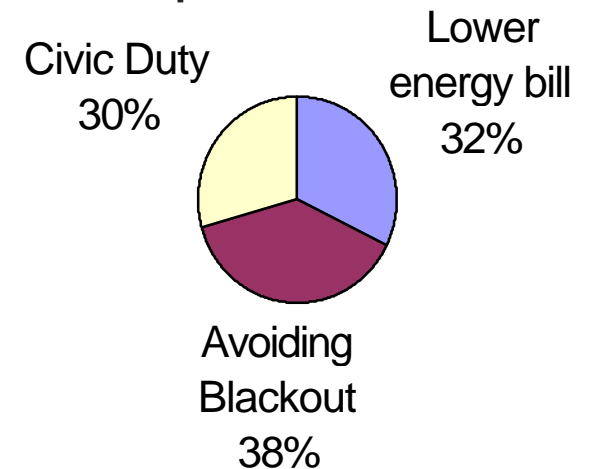
# Demand Responsive Actions

- n 41% of customers report taking additional conservation actions on alert days
- n Avoiding blackouts plays a larger role in demand responsive actions (38%) than general conservation activities (22%)

## Demand Responsive Actions Businesses Have Taken



## Reasons for Demand Responsive Actions





# Lighting Equipment Changes

- n 27% of customers made lighting changes versus 12% in 1999
- n Primary types of lighting changes:
  - ❖ CFLs accounted for 6%
  - ❖ T-8: 12%
  - ❖ lighting controls: 3%
- n 65% replaced fully functional lighting, up from 47% in 1999

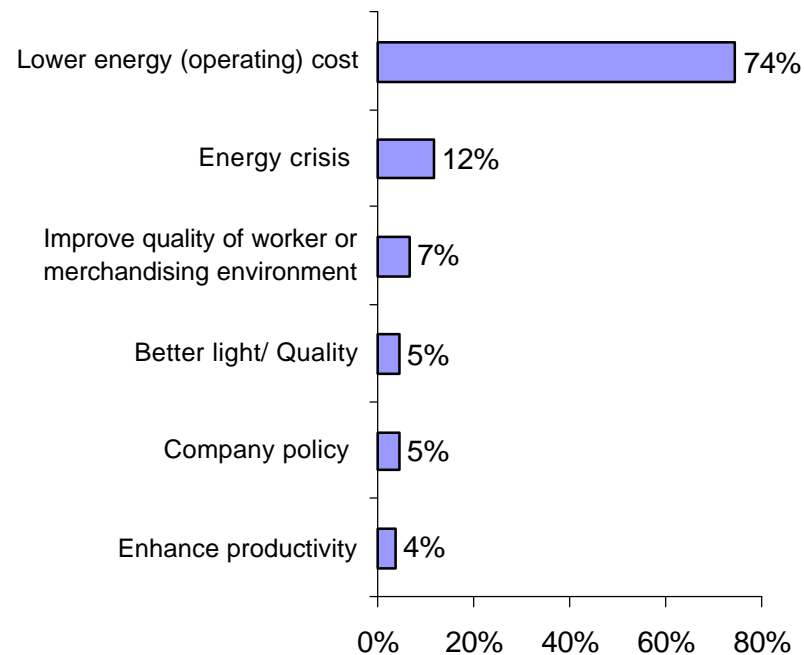




# Lighting Change Drivers

- n 74% of customers that made lighting changes cited lower energy cost as the driver.

## Reasons for Lighting Equipment Changes





# Cooling Equipment Changes

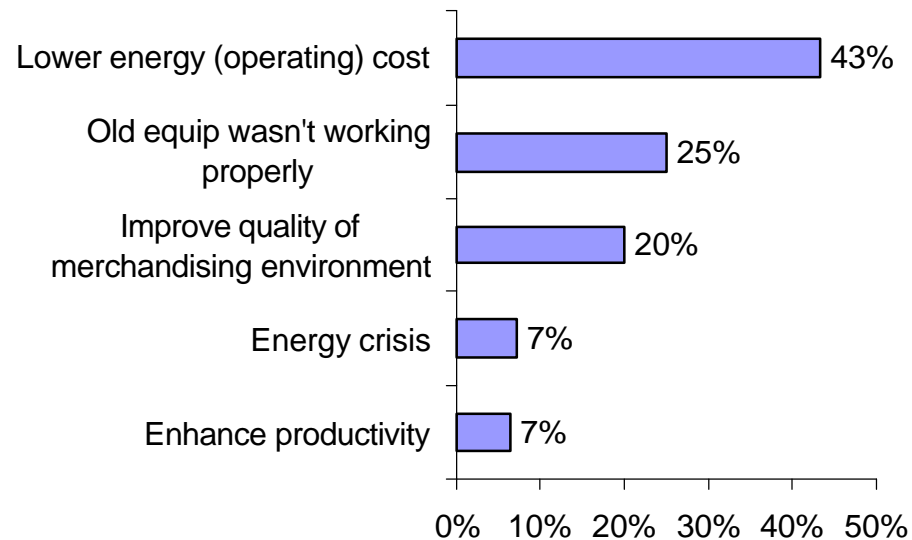
- n 21% of customers reported making changes in cooling equipment, 20% in 1999
- n Primary types of cooling changes:
  - ❖ A/Cs accounted for 11%
  - ❖ HVAC controls: 7%
  - ❖ Evaporative coolers: 2%
- n 34% replaced fully functional cooling, 17% in 1999.
- n 70% reported installing high efficiency A/Cs



# Cooling Change Drivers

- n Lower energy costs was the primary reason cited by customers who did cooling retrofits.
- n 66% made the decision independently (same as lighting retrofits).

## Reasons for Cooling Equipment Changes

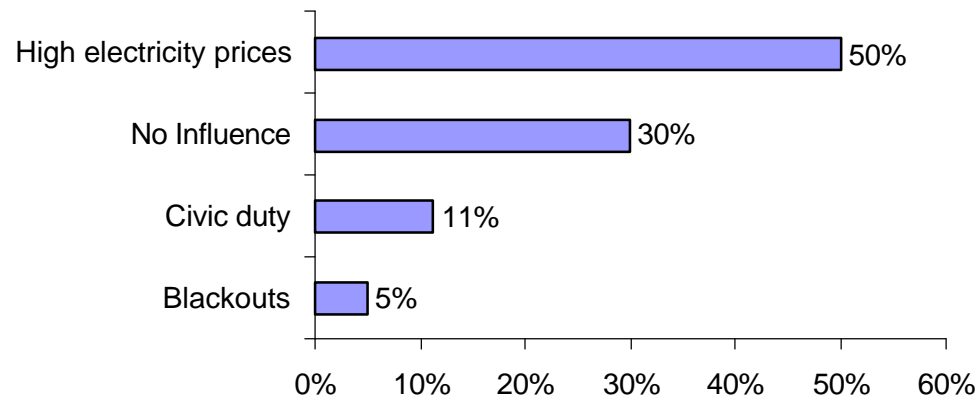




# Effect of Energy Crisis on Decision Making

- n Among customers retrofitting equipment, 50% cited electricity price

## Role of Energy Crisis in Driving Equipment Changes



- n The energy crisis played a role in driving new HE policies
  - ❖ 9% created a new policy that was influenced by the energy crisis

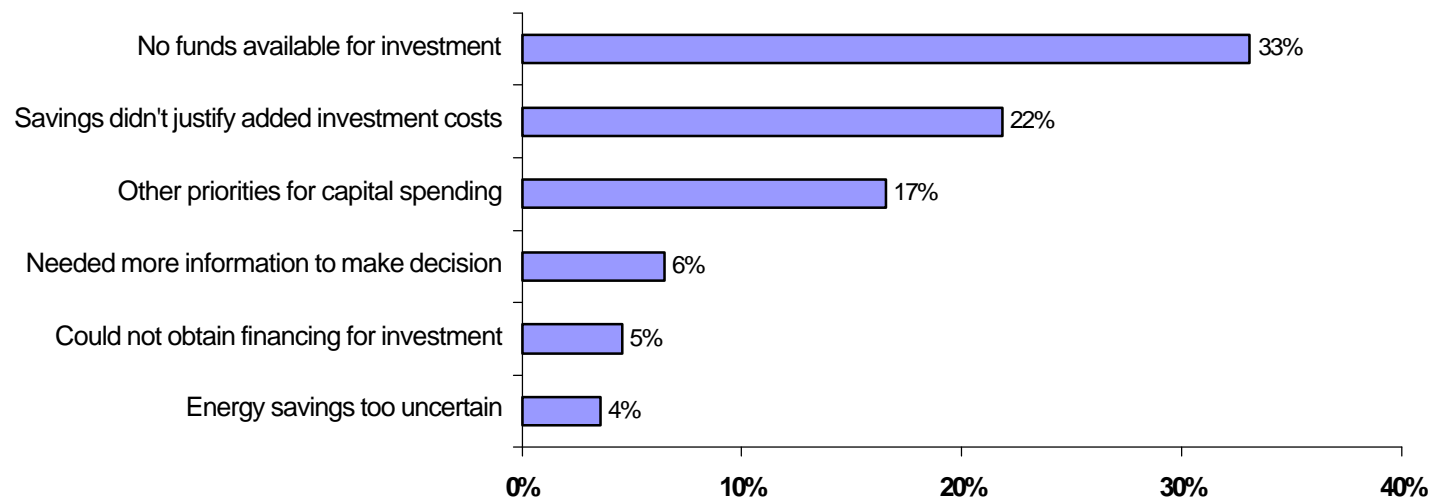




# Roads Not Taken

- n Only 12% of businesses identified but did not take energy-saving actions
- n Focus group customers: "I'm doing all that I can."

## Reasons For Not Taking Actions Identified

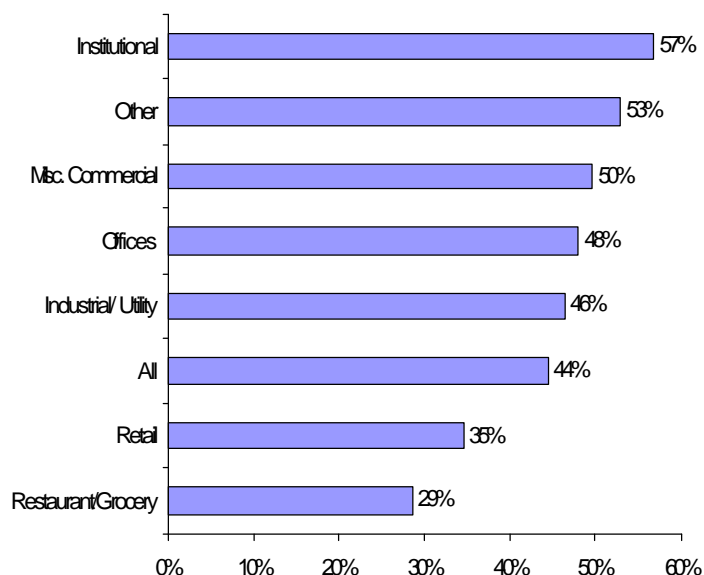




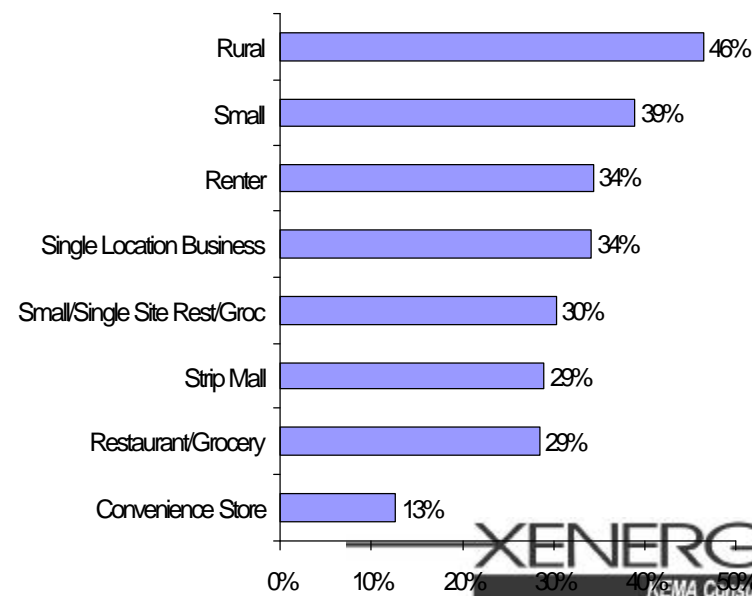
# Utility Program Awareness

- n 44% of customers indicated they are aware of utility programs, about twice the 1999 level
  - ❖ 14% report being aware of rebates
  - ❖ 3% mentioned audits
  - ❖ 2% cited distributor incentives

## Awareness by Business Type



## Awareness by HTR Segment





# Possible Next Steps

- n Draft report in preparation
- n Additional research needs:
  - ❖ Combine respondent results with billing data to estimate equipment vs. behavior changes
  - ❖ Untangle causal story

